

REMARKS

The Office Action dated August 24, 2006, has been received and carefully considered. In this response, claim 1 has been amended. No new matter has been added. Entry of the amendment to claim 1 is respectfully requested. Reconsideration of the outstanding objections/rejections in the present application is also respectfully requested based on the following remarks.

I. THE OBJECTION TO THE CLAIMS

On page 2 of the Office Action, claim 11 and 13 were objected to under 37 CFR § 1.75(d)(1) for allegedly failing to provide proper antecedent basis for the claimed subject matter. Claim 1 was objected to because a period was missing at the end of the claim recitation.

With regards to claim 11, Applicants respectfully submit that support for at least one "processor" is found in the specification on at least pages 1, lines 13, 15, and 20; page 2, lines 10 and 16; page 3, line 21; page 6, line 9; and pages 14, line 17. With regards to claim 13, Applicants respectfully submit that support for "a signal" for a carrier wave is found in the specification on at least page 6, line 22; page 7, lines 10 and 22; and page 13, line 16.

With regard to the objection of claim 1, Applicants respectfully submit that claim 1 has been amended to correct the deficiency as set forth in the objection.

In view of the foregoing, it is respectfully requested that the aforementioned objection to claims 1, 11, and 13 be withdrawn.

II. NON-STATUTORY SUBJECT MATTER REJECTION OF CLAIMS 11 & 13

On page 3 of the Office Action, claims 11 and 13 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is hereby respectfully traversed.

The Examiner asserts that claims 11 and 13 are not limited to tangible embodiments. Specifically, the Examiner alleges that the "at least one processor readable carrier" of claim 11 and the "signal embodied in a carrier wave" of claim 13 are not tangible embodiments. However, Applicants assert that there is no such limitation on patentable subject matter as long as the claimed invention as a whole accomplishes a practical application. That is, it must produce a "useful, concrete and tangible result." State Street Bank & Trust Co. v. Signature Financial Group Inc., 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601-02. Furthermore, Applicants direct the Examiner to the case law

set forth in In re Beauregard, 35 USPQ 2d 1383, 1384 (Fed. Cir. 1995), the recently decided In re Lundgren, (cite pending), and others, which clearly provide a patentable subject matter basis for claims 11 and 13.

It should be noted that claims 11 and 13 do recite tangible embodiments. For example, claim 11 recites "[a]n article of manufacture" and claim 13 recites a "method of processing a signal". This contradicts the Examiner's assertion that the claims do not recite tangible embodiment. In addition, with respect to claim 13, the Examiner relied on "[t]he Office's current position...that claims involving signals encoded with functional descriptive material do not fall within any of the categories of patentable subject matter set forth in 35 U.S.C. § 101," as discussed in 1300 OG 142 (November 22, 2005). Applicants have reviewed the Office's current position on these types of claims, as set forth in 1300 OG 142 (November 22, 2005), and respectfully point out that claim 13 has previously been amended, in compliance with that policy, to express a method (i.e., a process) as opposed to a signal. As a result, Applicants respectfully submit that claim 11 (article of manufacture) and claim 13 (process) contain statutory subject matter and therefore should be afforded patent protection.

In view of the foregoing, it is respectfully requested that the aforementioned non-statutory subject matter rejection of claims 11 and 13 be withdrawn.

III. OBVIOUSNESS REJECTION OF CLAIMS 1-3, 5-8, AND 10-13

On page 3 of the Office Action, claims 1-3, 5-8, and 10-12 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Piazza (U.S. Patent No. 5,881,291) in view of Sakai (U.S. Patent No. 6,113,650). This rejection is hereby respectfully traversed.

On page 6 of the Office Action, claim 13 was rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Piazza in view of Sakai, and in further view of Bak (U.S. Patent No. 6,704,927). This rejection is also hereby respectfully traversed.

Under 35 U.S.C. § 103, the Patent Office bears the burden of establishing a prima facie case of obviousness. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Patent Office can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of references. Id. Obviousness cannot be established by combining the teachings of

the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). That is, under 35 U.S.C. § 103, teachings of references can be combined only if there is some suggestion or motivation to do so. Id. However, the motivation cannot come from the applicant's invention itself. In re Oetiker, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992). Rather, there must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the art would make the combination. Id.

As stated in MPEP § 2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Also, as

stated in MPEP § 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Further, as stated in MPEP § 2143.01, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Further, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Additionally, as stated in MPEP § 2143.03, to establish *prima facie* obviousness of a claimed invention, all the claim

limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). That is, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Regarding independent claim 1, the Examiner asserts that "it would have been obvious to...modify the method disclosed by Piazza to include C/C++ program using the teaching of Sakai...because one of ordinary skill in the art would be motivated to optimize C/C++ program loops (Sakai, column 3, lines 40-58)." See Office Action, page 5. However, Applicants respectfully submit that the rejection is improper for the following reasons.

First, Sakai does not cure the deficiencies of Piazza. The Examiner admits that Piazza does not disclose the claimed C/C++ program. To repair this deficiency, the Examiner relies on Sakai to allegedly disclose the claimed C/C++ program. However, Applicants respectfully submit that Sakai's "C program" is not the same as a "C/C++ program" used in "transforming a first C/C++ program having a first multi-tasking property...[to] a

second C/C++ program having a multi-tasking property," as expressly recited in claim 1. At best, Sakai's "C program" runs a loop body within a SIMD instruction sequence. As a result, Sakai fails to cure the deficiencies of Piazza.

Second, even if Sakai can be considered to disclose the claimed "first C/C++ program" and "second C/C++ program," the Examiner has not provided proper motivation to combine Piazza and Sakai. As quoted above, the Examiner states that "[i]t would have been obvious to...modify the method disclosed by Piazza to include C/C++ program using the teaching of Sakai...because one of ordinary skill in the art would be motivated to optimize C/C++ program loops." However, this represents classic impermissible hindsight. The Examiner fails to provide any **evidence** as to why one of ordinary skill in the art would choose to implement the C program of Sakai within the Piazza method in the way claimed. Apparently, the Office Action's statement that it would "optimize C/C++ program loops" is wholly unsupported. Nowhere in Sakai is "optimize C/C++ program loops" even mentioned. Furthermore, the Examiner fails to set forth an explanation as to why one of ordinary skill in the art would have been motivated to use the C program as in Sakai with a compiler that uses a Scheme/Lisp in CPS as in Piazza, or if one did, how that would work.

In addition, Applicants respectfully point out that C/C++ was available at the time of Piazza, yet Piazza did not disclose that his compiler was usable with the C/C++ language. The Examiner acknowledges this fact but alleges that "[t]he mere fact that Piazza does not teach C/C++ program does not indicate that Piazza is *teaching away* from C/C++ program." See Office Action, page 8 (emphasis added). Apparently, the Examiner has confused the basis for Applicants' position because a "teaching away" argument was never asserted. Rather, the existence of C/C++ at the time of Piazza clearly demonstrates that those skilled in the art recognized the associated difficulties in going from programming C/C++ to programming in Scheme. Thus, this provides clear evidence to support a lack of motivation, not a teaching away, and in particular, that it would not have been obvious to substitute one program for the other, as alleged in the Office Action.

Regarding claims 6 and 11-12, these claims recite subject matter related to claim 1. Thus, the arguments set forth above with respect to claim 1 are equally applicable to claims 6 and 11-12.

Regarding claims 2-3, 5, 7-8, and 10, these claims are dependent upon either independent claim 1, 6, 11, or 12. Thus, since independent claims 1, 6, 11, and 12 should be allowable as

discussed above, 2-3, 5, 7-8, and 10 should also be allowable at least by virtue of their dependency on either independent claim 1, 6, 11, or 12.

Regarding claim 13, Bak is relied upon to allegedly disclose "a data signal embodied as a carrier wave." However, Bak does not cure the above-noted deficiencies of the proposed combination of Piazza and Sakai. For at least this reason Applicants respectfully request that the rejection of claim 13 be withdrawn.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 1-3, 5-8, and 10-13 be withdrawn.

IV. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

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To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

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